## S ESSESAVE COPY PATENT SPECIFICATION

Application Date: May 21, 1938: No. (5234/38

512279

Complete Specification Left: May 18, 1939. Complete Specification Accepted: Aug. 31, 1939.

## PROVISIONAL SPECIFICATION.

## Improvements relating to Window Raising and Lowering Mechanism

We, Wirmor Brewen Lauren of On the slide is mounted another fulley.

Gompany duly uncorporated under the and the slide is also provided with any

Laws of Great Britain of Eastern Works, convenient means for effecting connection

#15 none of a guide adapted to be mounfed spuiley. As regards the ather pulley on wertically for substantially, vertically elless lide it is only necessary from the beneath or in any other convenient positions. He will member to subtond its lower half tion relatively to the window, a slide although if desired it may be coiled one inhounted on the guide, and adapted for or more times around this pulley as well-accountation with the window, a pair of The ends of the field member are wertically work substantially, vertically the beneath or in any other convenient position relatively to the window, a slide pulleys at or near the ends of the guide, muchored to the slide. the copulleys, another pulley on the slide, suitable dexible nearlier as aforesaid may and a flexible-member such as a wire steamsed, this being mounted on the pulleys 25 table, this member being arranged to pass as above described and having one part sermound the pulleys on the guide and slide and slide and slide in one insurer, of constructing in

waccardance with this inventions agraising 30 and lowering intechnuism cfor an motor welliele window, we employ a guide made from sheet metal and having its longisedges of a slide which is movable in the 35 guide.—The signide is adapted to be sinounted on the door beneath, thouwindow or in any other convenient position tela or in any other convenient posture.

A tirely to the window. When applied to By means of this invention we are successful to provide a mechanism for raising and 90 the door the guido is arranged in a vertical to provide a mechanism for raising and 90 lowering a window and for holding the lowering a window and for holding the

At or near the upper end of the guide (window in any deared position) in a very n handle, and at ormear the lower end of The invention is not limited to vehicle to the country of the country of the invention is not limited to vehicle the country of the invention of detail it necessary) be applied to other shadble on the guide and is secured in policy to other windows.

In the invention is not limited to other windows.

Instead of the lower pulley a fixed arcuntaged in any a Dated this 20th day of May, 1938. Zincluded by the term pulley.

Laws of Great Britain of Leastern Works. convenient means for effecting connection with and Street, and the Citys of British with and supportangethe, weight, of the 55 ham, 1, and Arminus Save, a British window; the Subject, of the Company's address, down in combination with the pulleys above mentioned we employ any convenient flexible member such as a cord, leather subject to be as follows:

10. \*\*ATThis invention has for its object to produce but, preferably a wire cable. This GO 10. \*\*In proved window raising and member passes around all the pulleys. Howevering incellanism, and particularly Preferably it as coiled several stimes incellanism of this kind for motor vehicle around the hard operable pulley to ensure according to the failler will be accorded. sufficient frictional grip on that pulley.

Life invention comprises the combination of one of more times, around the slide

> as above described and having one part

to employ a chain er o perforated steel dapeas the flexible member, in which case 80 toothed or sprockelspilless would bosned on the guide and slide Movement of the glide on the guide for missing or lowering the window is effected would bosneed

by rotation of the handle on one of the guide pulleys, this rotation having, the effect of transmitting motion to the slide through the desible member.

[Price 1/-]

## Improvements relating to Window Raising and Lowering Mechanism

We, Wilkon-Breseden Limited, a it to be understood that in this connec-Company duly incorporated under the tion such a guide is included by the term Laws of Great Britain of Eastern Works, pulley. Camden Street, in the City of Birming- The slide & has mounted on it another hain, I, and Arthou Smyr, a British Subject of the Company's address, do hereby doclars the nature of this invention and in what manner the same is to be performed to be particularly described to and ascertained in and by the following statement:-

This invention has for its object to provide improved window raising and lowering mechanism, and particularly mech-15 anism of this kind for motor vehicle

windows

The invention comprises the combination of a guide adapted to be mounted vertically or substantially vertically 20 beneath or in any other convenient posi-tion relatively to the window, a slide mounted on the guide and adapted for connection with the window, a pair of pulleys at or near the ends of the guide. 25 hand operable means for actuating one of these pulleys, another pulley on the slide, and a flexible member, such as a wire cable, this member being arranged to pass around the pulleys on the guide and slide, 30 and being also secured to the slide.

In the accompanying elect of explan-

story drawings: — Figures 1 and 2 are respectively a part sectional side elevation and a rear cleva-35 tion of mechanism constructed in accordance with the invention for raising and lowering a motor vehicle window.

Figure 3 is a section on the line 3.3 of

hguro 2. In carrying the invention into effect as shown, we employ a guide a made from sheet metal and having its longitudinal edges bent over to receive the edges of a slide b which is movable in the guide. The guide a is adapted to be mounted on

the vehicle door (not shown) beneath the window o or in any other convenient posi-tion relatively to the window. When applied to the door the guide a is arranged 50 in a vertical or submantially vertical position.

At or near the upper end of the guide a is mounted a pulley d which is rotatable by a handle e, and at or near the lower 55 end of the guide is mounted another pulley / Preferably and as shown the pulley / Preferably and as shown the pulley f is carried on a plate g which is slidably adjustable in the guide a under the action of an adjusting screw h.

60 Instead of the lower pulley f a fixed arouste guide may be used, and we desire

The slide b has mounted on it another 65. pulley in, and is provided with any convenient means for effecting connection with and supporting the weight of the window c. Such means, in the example shown, comprises a short stem ton which 70 the pulley m is mounted, and which is secured at one end to the slide b, the other end of the stem being adapted to extend through a slotted bracket j on a channelshaped member, k accommodating the 75 lower edge of the window c:

In combination with the pulleys dm we employ any convenient flexible member a such as a cord leather band, but preferably a wire cable. This mem- 80 ber n pusses around all the pulleys d, f, m Preferably it is coiled several times around the hand operable pulley d to ensure sufficient frictional grap on that pulley, and one or more times around the slide 85 pulley m. As regards the other pulley f on the guide a it is only necessary for the flexible member n to subtend its lower half, although if desired it may be coiled one or more times around this pulley as 90 well. The ends of the flexible member n

are anchored to lugs o on the slide o.

If desired the flexible member may be formed by an endless wire cable or the like, this being mounted on the pulleys as 95 above described and having one part

anchored to the alide.

For some purposes it may be desirable to employ a perforated steel tape as the flexible member, in which case toothed or 100 sprocket pulleys would be used on the guide and slide.

Movement of the slide b in the guide a for raising or lowering the window o 13 effected by rotation of the handle s on the 105 guide pulley dethis rotation having the effect of transmitting motion to the slidethrough the flexible member n

By means of this invention we are able to provide a mechanism for raising and 110 lowering a window and for holding the window in any desired position, in a very

simple and convenient form.
The invention is not limited to vehicle.

windows as it may (with appropriate 115 modification of detail if necessary) be applied to other windows

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to 120 be performed; we declare that what we claim is:-

1. Window raising and lowering media berksuchy as a wire cobley this member anism comprising allocombination of the fluid arranged to pass around the full of the fluid anism and the following also substantially vertically beneath on in any scoured to the slide.

5. other convenient position relatively to the fluid of a slide for connection with the guide and allowed for connection with the window and fluid for connection with the window and the combination and arrangement of a parts of pulley at cornect tile ends of parts, substantially as described and as the guide hand operable means for fluid this off day of May 1939.

Fulley on the slide, and a flexible mem.

Leamington Spa. Printed for His Majesty's Stationery, Office, by the Courier Press 1939.





